

WE CLAIM:

1. A distributed trading system for handling a plurality of order requests, each order request comprising parameters under which a participant will buy and/or sell a futures contract, the system comprising:

5 a messaging bus;

a validator coupled to the messaging bus and having a first interface for receiving order requests, wherein the validator implements processes for validating the order requests, and an interface generating a validated order message on the messaging bus related to validated orders;

10 a risk allocation value (RAV) component coupled to the messaging bus and having an interface for receiving validated order messages from the validator, wherein the RAV component implements processes for evaluating risk associated with an order should that order be completed;

15 a match engine coupled to the messaging bus and having an interface for receiving validated order messages from the RAV component, wherein the match engine implements processes for matching orders based on the order-specified criteria; and

20 a persist component coupled to the messaging bus and having an interface for receiving messages related to orders and trades, wherein the persist component implements processes for persistently storing information related to orders and trades.

2. The system of claim 1 further comprising: a market data service component coupled to the messaging bus and having an interface for receiving messages related to orders and trades, wherein the market data service component implements processes for generating market data related to orders and trades handled by the distributed trading system.

3. The system of claim 1 wherein the RAV component evaluates risk based on active orders, positions and margins for a particular customer placing the order.

4. The system of claim 1 wherein the messaging bus comprises a subscriber publisher messaging bus.

5. The system of claim 1 wherein the match engine is configured specifically for a particular class of futures contracts and receives validated order messages only when they relate to the particular class of futures contracts.

6. The system of claim 5 wherein the particular class of futures contracts comprise a contract cluster.

7. The system of claim 1 wherein the match engine publishes messages related to executed trades that are subscribed to by the persist component.

8. The system of claim 1 wherein the match engine publishes messages related to unmatched orders that are subscribed to by the persist component.

9. The system of claim 1 wherein the validator subscribes to messages related to market state, and the validator further comprises processes for using the market state to validate orders.

10. The system of claim 10 wherein the market state messages include information selected from the group consisting of: exchange active, contract active, markets open, user assigned to account, and high/low limits.

11. The system of claim 1 wherein the messages are self-describing.

12. The system of claim 1 wherein the messages comprise XML messages.

13. A method for implementing trades on an electronic exchange, the method comprising the acts of:

providing a messaging bus;

5 receiving an order request in a first component, wherein the order request specifies parameters under which a participant will buy and/or sell a futures contract;

validating the order requests;

generating a validated order message on the messaging bus related to validated order request when the order request satisfies pre-specified validation criteria;

10 receiving the validated order message in a second component,

evaluating risk associated with the order represented in the validated order message;

generating an accepted order message on the messaging bus when the evaluated risk satisfies pre-specified risk criteria;

15 receiving the accepted order message in a third component;
matching orders based on the order-specified criteria;
generating an unmatched order message on the messaging bus;
generating a trade message on the messaging bus corresponding to two or more matched orders; and

20 receiving the messages related to unmatched orders and trades; and persistently storing information related to orders and trades.

14. The method of claim 13 wherein the validator further comprises processes for reporting errors back to a client

15. A futures exchange including the distributed trading system of claim 1.

16. The futures exchange of claim 15 further comprising:

5 a trading floor operation producing a plurality of manually executed trades;
and
mechanisms for recording executed trades from the trading floor.

17. The futures exchange of claim 16 where the mechanisms for recording executed trades utilize at least some of the components of the distributed trading system.

18. A market data product comprising market data produced by the market data service component of claim 2.